

DIAGNOSES OF CYRTANDRA SPECIES (GESNERIACEAE) SECTION
CYLINDROCALYCES

HAWAIIAN PLANT STUDIES 158

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In the genus *Cyrtandra* in the Hawaiian Islands, the section *Cylindrocalyces* is one of the larger sections and it is present on all of the larger islands. The present report adds 20 new species and 3 varieties to the total. Unless otherwise indicated the types are in the Bishop Museum, Honolulu.

Cyrtandra *Bishopii* sp. nov. Novellae pilosae sunt, foliis oppositis inaequalibus, petiolis 3-4.5 cm longis pilosulis, laminis 6-15 \times 2.4-6 cm ellipticis acuminatis basi cuneata supra primo pilosulis infra glaucis, cymis 5 cm longis 1-3-floriferis pilosulis, pedicellis 11-14 mm longis, calycibus 20-21 mm longis fusiformibus pilosulis 4 lobis 11 mm longis lanceolatis, corollis 20 mm longis puberulis, loba infera 6 \times 11 mm transverse elliptica. Typus: Oahu I., Koolau Range, Kahawainui Gulch, E. Bishop 016910.

C. brevipedicularis sp. nov. Caules glabri sunt, foliis oppositis, petiolis 7-11 mm longis pilosulis, laminis 11.5-14 \times 2-3.2 cm subcoriaceis oblanceolatis subacutis basi decurrenti, cymis 4.5 cm longis 3-5-floriferis, pedicellis 5-15 mm longis glabris, calycibus 23 mm longis fusiformibus rostro 4 mm longo, labia infera cum 2 lobis 9 mm longis lanceolatis, corollis 28 mm longis glabris loba infera 9 \times 1 mm suborbiculari mucronata. Typus: Kauai I., Limahuli, S. Perlman & C. Wichman 200.

C. calvicorolla sp. nov. Ramulae glabrae sunt, foliis oppositis inaequalibus eis novellis sericie pilosis, petiolis 3-10 cm longis, laminis 18-19 \times 6-15 cm oblanceolatis vel ellipticis subacutis basi cuneata et decurrenti supra midnervo pilosulo infra nervis pilosulis, cymis 1.5-3 cm longis 3-5-floriferis pilosulis, pedicellis 7-10 mm longis, calycibus 23-25 mm longis fusiformibus pilosulis rostro 4-5 mm longo labia supera bilobata lobis 11.5 mm longis infra lanceolatis supra subulatis, corollis 25 mm longis glabris. Typus: Kauai I., Anahola, H. St. John et R. S. Cowan 23, 113.

C. cylindrica sp. nov. Ramulae glabratae sunt, foliis oppositis inaequalibus, petiolis 1.2-4.7 cm longis pilosis, laminis 4-15 \times 1.7-8.8 cm ellipticis subacuminatis basi cuneata decurrenti supra hirsutis infra pilosis

nervis hirsutulibus, cymis 1.5-2.3 cm longis 1-floriferis pilosis, pedicellis 1-2 mm longis, calycibus 18-20 mm longis pilosis, 5 lobis 5-8 mm longis lanceolatis, corollis 20-22 mm longis pilosulis. Typus: Kauai I., C. Christensen 287.

C. ellipsoidea sp. nov. Novellae pilosulae sunt, foliis oppositis inaequalibus, petiolis 4-7 cm longis alatis pilosulis, laminis 20-23.5 × 6-10.2 cm ellipticis subacuminatis basi cuneata supra midnervo pilosulo infra nervis pilosulis, cymis 1.5-3 cm longis 3-floriferis pilosulis, pedicellis 1-2 mm longis, calycibus 18-23 mm longis pilosulis rostro 3-4 mm longo 5 lobis 6-8 mm longis subulatis ex basi ovata, corollis 25-27 mm longis glabris loba infera 12-14 × 9-10 mm ovata. Typus. Kauai I., Hanakapiai, S. Perlman 474.

C. glabricalycis sp. nov. Frutex 1 m altus est, foliis oppositis, petiolis 1-3 mm longis pilosulis, laminis 6-22 × 1.7-3.7 cm subcoriaceis subacutis basi cuneata subtus nervis pilosulis, cymis 5-6 cm longis 1-floriferis pilosulis, pedicellis 20-25 mm longis, calycibus 27 mm longis glabris lobis 2-4 mm longis lanceolatis, corollis 23 mm longis. Typus: Kauai I., P. van Royen 11,709.

C. indivisa sp. nov. Frutex 1 m altus est, foliis oppositis, petiolis 5.5 cm longis pilosulis, laminis 25-32 × 9-10 cm ellipticis acutis basi cuneata decurrentibus supra midnervo pilosulo infra pilosulis, cymis 4-5 cm longis 3-floriferis pilosulis, pedicellis 5-6 mm longis, calycibus 30-38 mm longis pilosulis rostro 4-5 mm longo 19 mm lobatis labia supera bifida lobis 3 mm longis subulatis, corollis 32 mm longis. Typus: Kauai I., Lumahai Valley, C. Christensen 224.

C. infrafissa sp. nov. Novellae pilosae sunt, foliis oppositis inaequalibus, petiolis 6-7 cm longis pilosis, laminis 18-24 × 6.7-8.5 cm ellipticis acuminatis basi cuneata supra nervis pilosulis infra pilosulis, cymis pilosulis, pedicello et pedicello 1-2 mm longis, calycibus 24 mm longis pilosis rostro 5 mm longo 2 lobis lanceolatis, corollis 31 mm longis glabris loba infera 10 × 7 mm ovata. Typus: Kauai I., Lumahai Valley, C. Christensen 252.

C. integra sp. nov. Frutex 1-2 m altus ramosus est, foliis oppositis inaequalibus, petiolis 8-12 mm longis pilosulis, laminis 14-20 × 3-4.5 cm subcoriaceis ellipticis subintegris acuminatis basi cuneata infra nervis pilosulis, cymis 1-2-floriferis pilosulis, pedicellis 12-15 mm longis, calycibus 38 mm longis rostro 7-8 mm longo 3 lobis 19 mm longis lanceolatis, corollis 31 mm longis glabris loba infera 11, 10 mm. Typus: Kauai I., Wainiha-Manoa, C. Christensen 287,

C. macrocarpa (Skotts.) comb. nov.

C. Gayana Heller, var. *macrocarpa* Skotts., Acta Horti Gothob. 15: 441, 1944.

Expanded diagnosis: Young shoots pilosulous leaves opposite, petioles 8-11 mm long, glabrate; blades 8.5-13.5 × 2.1-3.2 cm narrowly elliptic, subobtusate, the blade cuneate, below the veins pilosulous; cymes 5 cm long, 3-flowered, pilosulous; pedicels 13-16 mm long; calyx 20-22 mm long, ellipsoid, almost beakless, upper lobes 4-5 mm long, deltoid; corolla 25-27 mm long, glabrous. Lectotype: Kauai I., Alakai, Kilohana, O. Selling 2,869 (BISH).

C. obtusa sp. nov. Novellae pilosulae sunt, foliis oppositis inaequalibus, petiolis 4-7 cm longis pilosulis, laminis 8.5-10 × 4-6.7 cm elliptici-obovatis basi cuneata supra midnervo pilosulo infra nervis pilosulis, cymis 2.5-3 cm longis 1-floriferis pilosulis; pedicellis 10-15 mm longis, calycibus 18 mm longis pilosulis rostro 2 mm longo lobis 8 mm longis lanceolatis, corollis 26 mm longis glabris. Typus: Kauai I., Haupū Range, C. N. Forbes 749.K.

C. oenobarba H. Mann, var. *proceripetiolata* var. nov. Planta herbacea acaulescens est, a specie differt in petiolis 14-27 cm longis, laminis 13-15 × 10-13 cm suborbicularibus profunde cordatis, cymis 18 cm longis 7-floriferis, pedunculis 10.5 cm longis, bracteis 12 mm longis chartaceis, pedicellis 10-15 mm longis. Typus: Kauai I., Power Line Trail, C. N. Forbes 146.K.

C. orbicularis sp. nov. Ramulae glabrae sunt, foliis oppositis, petiolis 2.5-4 cm longis pilosulis, laminis 9.5-16.5 × 3.5-6.2 cm subcoriaceis ellipticis sibacuminatis basi cuneata subdecurrenti infra nervis pilosulis, cymis 3-7-floriferis, calycibus 11 mm longis puberulis lobis inferis 4.5 mm longis ovatis acutis, corollis 20 mm longis glabris loba infera 4 × 5.5 mm oblate suborbiculari. Typus: Kauai I., S. Perlman 15.

C. paludosa Gaud., var. *honopueensis* var. nov. A var. *irrostrata* differt in petiolis adpresse pilosulis, laminis supra adpresse pilosulis infra nervis adpresse pilosulis, cymis calycibusque divergente pilosulis, tubo corollae capitata glandulose pilosulis, Typus: Hawaii I., Kohala Mts., Honopue Gulch, L. E. Bishop 007029,

C. paludosa Gaud., var. *kohalaensis* var. nov. A var. *honopueensis* differt in ramulis petiolisque dense divergente pilosulis, laminis supra ascendente pilosulis infra in nervis dense divergente pilosulis, cymis calycibusque divergente pilosulis. Typus: Hawaii I., Kohala Ditch Trail Road, A. Greenwell (Degener no.) 19,260.

C. Perlmanii sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 23-25 mm longis pilosulis, laminis 19-24 × 4-5 cm oblanceolatis subacuminatis basi cuneata subtus nervis pilosulis, cymis 5-7-floriferis pilosulis, pedunculo 4-5 mm longo, pedicellis 8-10 mm longis, calycibus 22 mm longis rostro 5-6 mm longo 3 lobis lanceolatis corollis 20 mm longis glabris. Typus: Kauai I., Limahuli Valley, S. Perlman 3.

C. puberis sp. nov. Novellae pilosulae sunt, foliis oppositis inaequalibus, petiolis 3-6 cm longis, laminis 15.5-20.7 × 7.3-8.7 cm ellipticis subacuminatis basi cuneata decurrenti supra nervis pilosulis infra pilosulis nervis pilosis, pedicellis 10 mm longis glabris, calycibus 10 mm longis glabris labiis 3 mm longis lobis deltoideis, corollis 20 mm longis glabris. Typus: Kauai I., Limahuli Valley, S. Perlman 1.

C. pubinervis sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 1.7-3.5 cm longis glabratis, laminis 8-13.7 × 3.5-7 cm ellipticis subacutis basi rotundata supra et infra nervis pilosulis, cymis 3.5-4 cm longis 3-5-floriferis puberulis, pedicellis 8-10 mm longis, calycibus 15-16 mm longis pilosulis rostro 2-2.5 mm longo lobis 7-9 mm longis lanceolatis, corollis 22 mm longis glabris. Typus: Kauai I., Hanapepe Falls, A. A. Heller 2,440.

C. semisubulata sp. nov. Frutex est, foliis oppositis, petiolis 6-7 cm longis alatis pilosulis, laminis 27-30.5 × 11.5-13.5 cm ellipticis acuminatis basi cuneata supra nervis pilosulis infra pilosulis, cymis 3.5-4.5 cm longis 3-5-floriferis pilosulis, pedicellis 6-15 mm longis, calycibus 24-30 mm longis pilosulis labia supera 8-10 mm longa trifida lobis 3-4 mm longis subulatis, corollis 30 mm longis glabris. Typus: Kauai I., C. Christensen 331.

C. sericea sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 2.5-4 cm longis pilosulis, laminis 7-12 × 2.3-4 cm subcoriaceis ellipticis acuminatis basi cuneata decurrenti supra midnervo pilosulo infra nervis pilosulis, cymis 2.5-4 cm longis 7-15-floriferis, pedunculo 7-12 mm longo, calycibus 12-13 mm longis glabris, lobis inferis 5-6 mm longis lanceolatis, corollis 17 mm longis glabris. Typus: Kauai I., S. Perlman 193.

C. vanRoyenii sp. nov. Ramulae glabrae sunt, foliis oppositis, petiolis 3-8 mm longis glabratis, laminis 10-16 × 3-4.6 cm coriaceis fusiformibus subacutis basi rotundata infra nervis puberulis, cymis 4-7 cm longis 1-2-floriferis pilosulis, pedicellis 2.5-4 cm longis, calycibus 28 mm longis puberulis $\frac{1}{2}$ partitis labia supera 6 mm longa trilobata, corollis 34 mm longis glabris. Typus: Kauai I., Alakai, Mohihi-Waiialae, P. van Royen et al. 11,749.

C. wahiawaensis sp. nov. Novellae glabrae sunt, foliis oppositis inaequalibus, petiolis 9-13 mm longis, laminis 4-14 × 1.2-4 cm subcoriaceis glabris oblanceolatis subacuminatis basi cuneata decurrenti, cymis 1-floriferis glabris, pedicellis 15-25 mm longis, calycibus 19 mm longis rostro 3 mm longo lobis 6-7 mm longis ovatis, corollis 20-22 mm longis glabris. Typus: Kauai I., Wahiawa, S. Perlman 481.

C. waioliensis sp. nov. Novellae pilosulae sunt, foliis oppositis inaequalibus, petiolis 5-11.5 cm longis puberulis, laminis 24-25 × 8.8-10.5 cm ellipticis acutis basi cuneata decurrenti infra nervis pilosulis, cymis 3-4 cm longis 3-floriferis pilosulis, pedicellis 6-9 mm longis, calycibus 26 mm longis pilosulis rostro 3-5 mm longis 11 mm partitis, corollis glabris. Typus: Kauai I., Waioli Ridge, C. N. Forbes 92.K.